

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1.-4. (Cancelled)
5. (Currently amended) A composition comprising a first thermostable *Archeoglobus fulgidis fulgidus* enzyme exhibiting 3'-5' exonuclease activity but essentially no DNA polymerase activity and a second enzyme exhibiting DNA polymerase activity, wherein said first thermostable *Archeoglobus fulgidis fulgidus* enzyme is active under the incubation and temperature conditions of a polymerase chain reaction **and is encoded by DNA which hybridizes to a primer having a sequence as shown in SEQ ID NO: 1 and a primer having a sequence as shown in SEQ ID NO: 2**, said composition enhancing the fidelity of an amplification process in comparison to the use of the single second enzyme.
6. (Previously presented) The composition according to claim 5 wherein the second enzyme is lacking proofreading activity.
7. (Previously presented) The composition according to claim 6 wherein the second enzyme is *Taq* polymerase.
- 8.-18. (Cancelled)
19. (Currently amended) The composition of claim ~~18~~ **1**, wherein the first thermostable *Archeoglobus fulgidis fulgidus* enzyme is ~~SEQ ID NO: 21~~ **SEQ ID NO: 18**.